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**Publication:** American Astronomical Society, DPS meeting #47, id.#212.06

**Publication** 11/2015

**Date:**

**Origin:** [AAS](#)

**Abstract** (c) 2015: American Astronomical Society

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**Bibliographic Code:** [2015DPS....4721206S](#)

### Abstract

The Dawn Framing Camera has revealed a unique feature on the surface of Ceres, popularly referred to as the “pyramid.” It is a roughly conical and flat-topped feature with an elevation of ~5 km and base diameter of ~20 km. The side slopes are roughly consistent with an angle of repose one expects of particulate material on Earth (which may change with gravity). The pyramid is also notable for its striations down its side over half of its circumference. These striations sharply terminate at the base of the cone without a distinctive talus deposit, including an adjacent crater. Recently released images of Norgay Montes and a second mountain chain in Tombaugh Regio on Pluto by the New Horizons mission reveal mountains with strikingly similar morphologies with the Ceres pyramid. They are of similar size to within a factor of a few. We investigate the hypothesis that there may be a common mechanism giving rise to these features on the two dwarf planets. Given their significantly different heliocentric distances, the remarkable ongoing widespread processing of the surface of Pluto and increasing evidence of relatively recent activity in some areas of Ceres, interior processes such as plume activity or tectonics may be responsible. A comparative study of uplift morphology on the two dwarf planets may also lend insights into heat production and retention on such bodies throughout the solar system.

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